

Date: Tuesday, 12/5/2006 8:15:09 AM  
User: Kim Johnston

Process Sheet

*split* 07/02/27

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : AVIONICS RISER CONSOLE
Job Number : 29774	
Estimate Number : 10259	
P.O. Number : <i>N/A</i>	Part Number : D212722011
This Issue : 12/5/2006 S.O. No. : <i>NA</i>	Drawing Number : D3363 REV B 1
Prsht Rev. : NC	Project Number : N/A
First Issue : <i>NA</i> Type : SMALL /MED FAB	Drawing Revision : B 1 <i>PH</i>
Previous Run : 29376	Material : <i>06.12.04</i>
Written By : <i>[Signature]</i>	Due Date : 1/15/2007 Qty: 10 Um: Each
Checked & Approved By : <i>[Signature]</i>	
Comment : Est Rev:B 05.04.11 Now made at Dart KJ/JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Comment: DOCUMENT CONTROL  
Photocopy bluefile and create labels per PPP D212-722-011 CHG002

*KS 06.12.12 (90)*

2.0	M6063T5A0750W063	Angle6063T5X.75X.75X.063
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Comment: Qty.: 7.2450 f(s)/Unit Total : 72.4500 f(s)  
Material: 6063-T52 Aluminum angle 3/4" x 3/4" x 0.063" wall(M6063T5A0.750W.063)  
Batch: *m 103019 - 40*

*M103007 - 40*  
*m 103019 - 40*

3.0	M6063T5C75X75W125	6063 CHANNEL.75X.75X.125
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Comment: Qty.: 0.8290 f(s)/Unit Total : *(7.461)* 8.2900 f(s)  
Material: 6063-T52 Aluminum channel 3/4" x 3/4" x 0.125" wall(M6063T5C.75x.75W.125) ]  
Batch: *m 17695*

*M17080* *x304*  
*x9*

4.0	D33631	CONSOLE
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)  
Pick:  
Qty Part Number Description Batch  
1 D3363-1 Console (Bent) *B29826*

*X9*

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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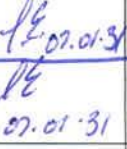



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Cut (2) D3360-1, (2) D3360-3 & (2) D3360-5 to length as per Dwg D3360Material: 6063-T52 Aluminum angle 3/4" x 3/4" x 0.063" wall

*m 07/02/01*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: ☒ Date: 07/01/06  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07-01-31	5.4	1 hole was c'sunk too much. Human error.		Fill hole with weld AS per QS1004. AL Rod A/R B: M100237 grind flush & re c'sink	 07.01.31	 07/01/06		 07-01-31

NOTE: Date & initial all entries



Date: Tuesday, 12/5/2006 8:15:09 AM  
User: Kip Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AVIONICS RISER CONSOLE

Job Number: 29774

Part Number: D212722011

Job Number:



Seq. #:

Machine Or Operation:

Description :

2-Cut (1) D3361-1 to length as per Dwg D3361 Material: 6063-T52 Aluminum channel 3/4" x 3/4" x 0.125" wall

3-Deburr D3360-1/-3/-5 & D3361-1

4-Transfer drill and C'Sink D3360-1/-3/-5 & D3361-1 from D3363-1 as per D3363. Do not rivet together

5-Deburr all parts

ml 07/02/01

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

FL/YL

07/02/05

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

ml 07/02/05

8.0

PR351

DZUS FASTENER RAIL



Comment: Qty.: 0.3333 f(s)/Unit Total: 3.3330 f(s) (5.999) F.

Material: Dzus Fastener Rail

(PR35-1 or PR3-1/2-1)

Batch: M 17763

X 18

9.0

MS20426AD45

Rivet



Comment: Qty.: 44.0000 Each(s)/Unit Total: 440.0000 Each(s) (396)

Pick:

Qty Part Number

Description

Batch

44 MS20426AD4-5

Rivet

M 4067

PTO

10.0

MS20426AD46

Rivet



Comment: Qty.: 9.0000 Each(s)/Unit Total: 90.0000 Each(s) (81)

Pick:

Qty Part Number

Description

Batch

9 MS20426AD4-6

Rivet

M 100151

11.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Cut (2) D3362-1 to length as per Dwg D3362 Material: Dzus Fastener Rail


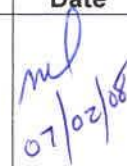



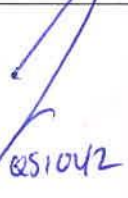
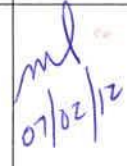


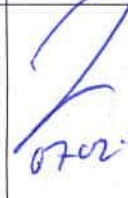
PTO

ml 07/02/06 x 9

ml 07/02/07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: ☒ Date: 07/03/06  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07/02/08	11	Scrap 3 box D.3361 when install rivets		take out 15 rivets and Scrap 3 x D3361 replace them (Bad Tools ?!)	 07/02/08	 07-02-27	 051042	 0702-27
07/02/12	9	Because bad c'sink Scrap 43 rivets (4-5) not deep enough		take out and replace by new one touch-up c'sink to f. 1 rivet. touch-up with Alocize.	 07/02/12	 07-02-27	 051042	 0702-27

NOTE: Date & initial all entries



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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AVIONICS RISER CONSOLE

Job Number: 29774

Part Number: D212722011

Job Number:



Seq. #:

Machine Or Operation:

Description :

2-Rivet D3360-1/-3/-5 & D3361-1 & D3362-1 as per Dwg D3363  
Identify as D3363-041

ml 07/02/06 x9

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/03/06 (7)

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1  
Pick Packing Kit

14.0

PFSC3538A

Dzus 1/4 turn fastener



Comment: Qty.: 8.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description Batch

8 PFSC35-38A

Dzus Fastener

M19567x43/13x11/207

1 d3363-041

Console Ass

B 29774

C 07/03/05

(7)

15.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

07/3/5

(7)

16.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

REV.D

Identify and pack for shipping as per PPP D212-722-011

07/03/05

(7)

17.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/03/06

Job Completion



07/03/06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D212-722-011 PAR #: N/A Fault Category: Prod / FAB ASS <sup>med & small</sup> NCR: Yes No DQA: Yes Date: 07/03/06  
 QA: N/C Closed: Yes Date: 07.03.09

NCR: <u>29774</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07-02-27	12-0	10 D 3361-1 has an oversized hole around the mushroomed rivet. Unacceptable.	<u>as1042</u>	Remove & replace AS per Dwg.	<u>ml</u> <u>07/03/06</u>	<u>ml</u> <u>07/03/06</u>	<u>as1042</u>	<u>07-02-27</u>
07-02-27	12-0	10 rivets replaced in all, <del>move</del> due to bad installation → rivets are cracked.	<u>as1042</u>	Replace MS 20426AD4-5	<u>ml</u> <u>07/03/06</u>	<u>ml</u> <u>07/03/06</u>	<u>as1042</u>	<u>07-02-27</u>

NOTE: Date & initial all entries

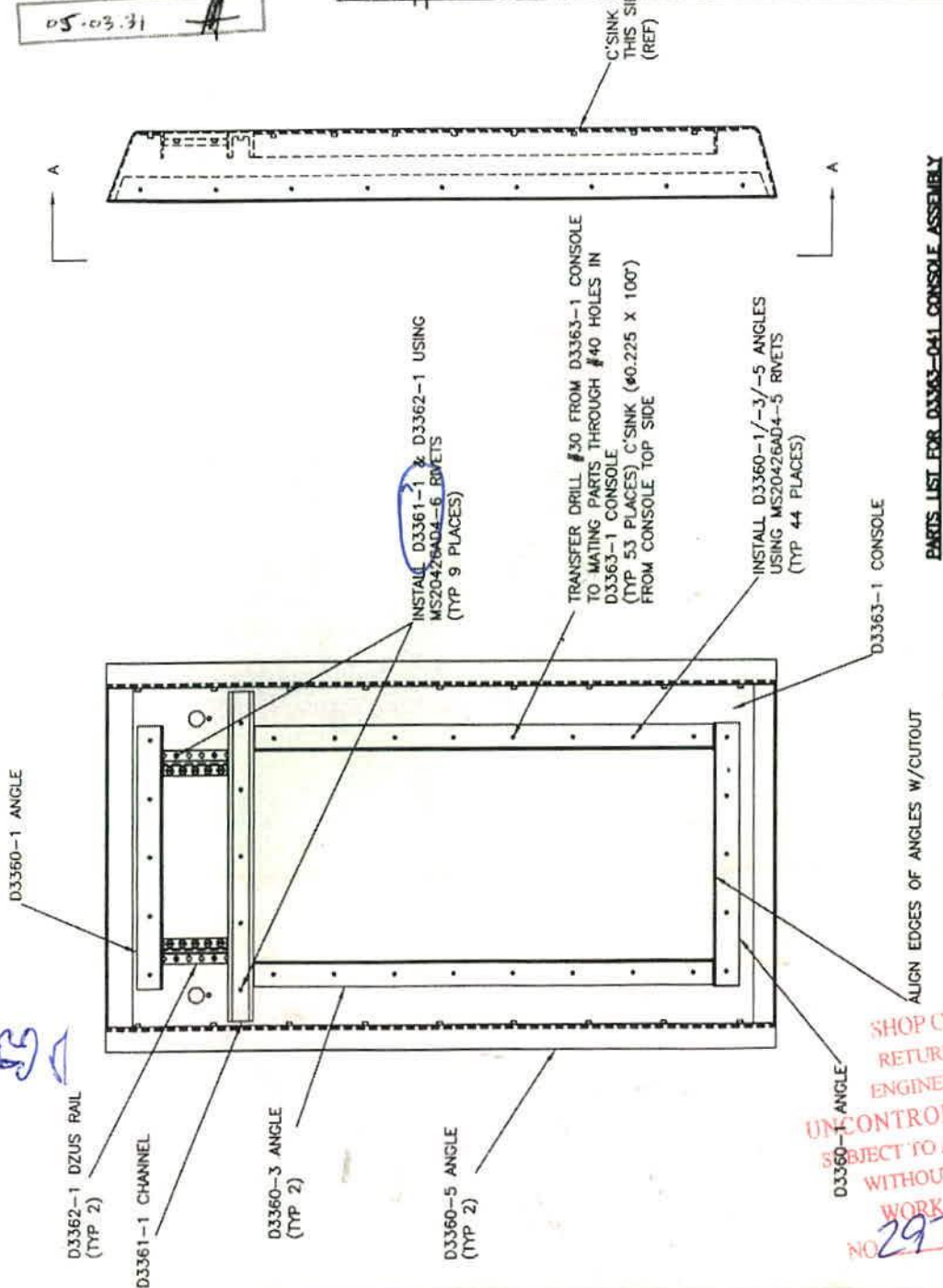


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DESIGN PH	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3363	REV. B SHEET 1 OF 3
DATE 05.03.28		TITLE CONSOLE ASSEMBLY	SCALE 1:5
A	04.11.29	NEW ISSUE	
B	05.03.28	INCREASE WIDTH BY 0.125	
B1	<del>05.04.28</del>	CHANGE WIDTH TO 10.430, WAS 10.43	

RELEASED

05.03.31



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WORK ORDER  
NO 29774

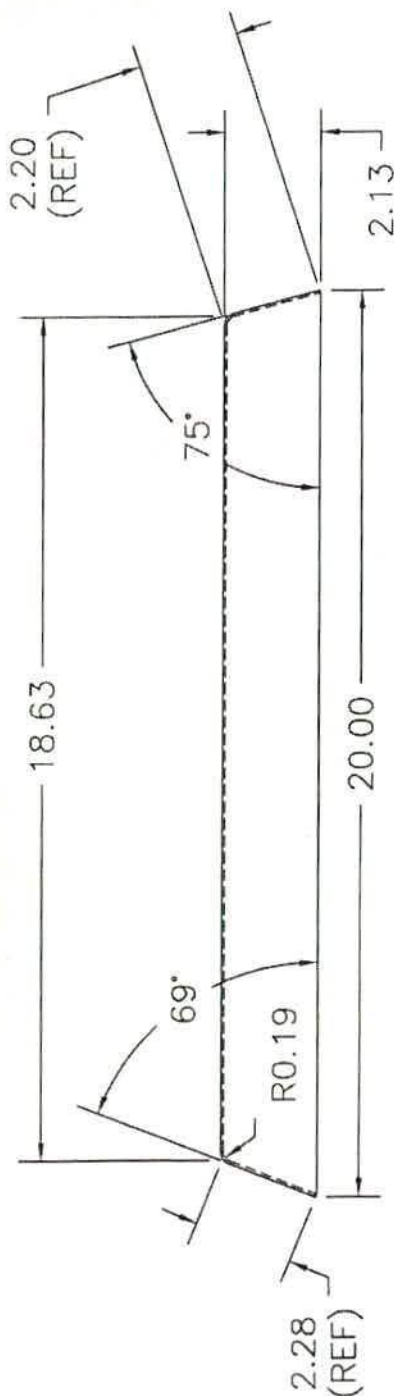
- D3363-041 CONSOLE ASSEMBLY
- 1) ASSEMBLE IN ACCORDANCE WITH DART QSI 002
  - 2) IDENTIFY WITH DART P/N D3363-041 AND B/N BXXXXX USING FINE POINT PERMANENT INK MARKER
  - 3) FINISH/HAD ETCH AND ALODINE PER DART QSI 005 4.1

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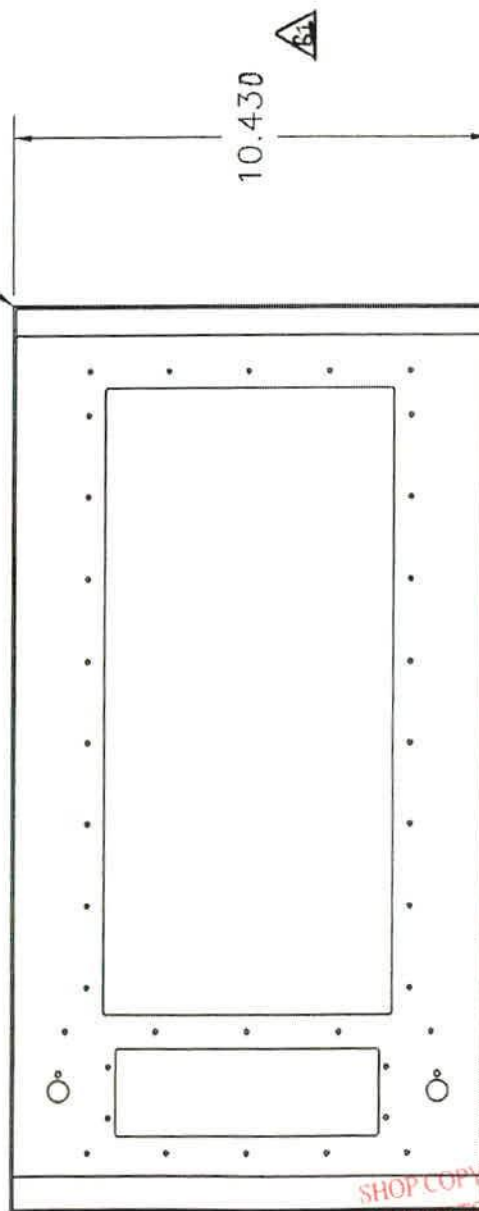
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DATE 05.03.28		TITLE CONSOLE ASSEMBLY	SCALE 1:4



O V &lt; TYP

**D3363-1 BEND DETAIL**

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- D3363-1 CONSOLE
- 1) WELD PER DART QSI 004
  - 2) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
  - 3) ALL DIMENSIONS ARE IN INCHES
  - 4) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

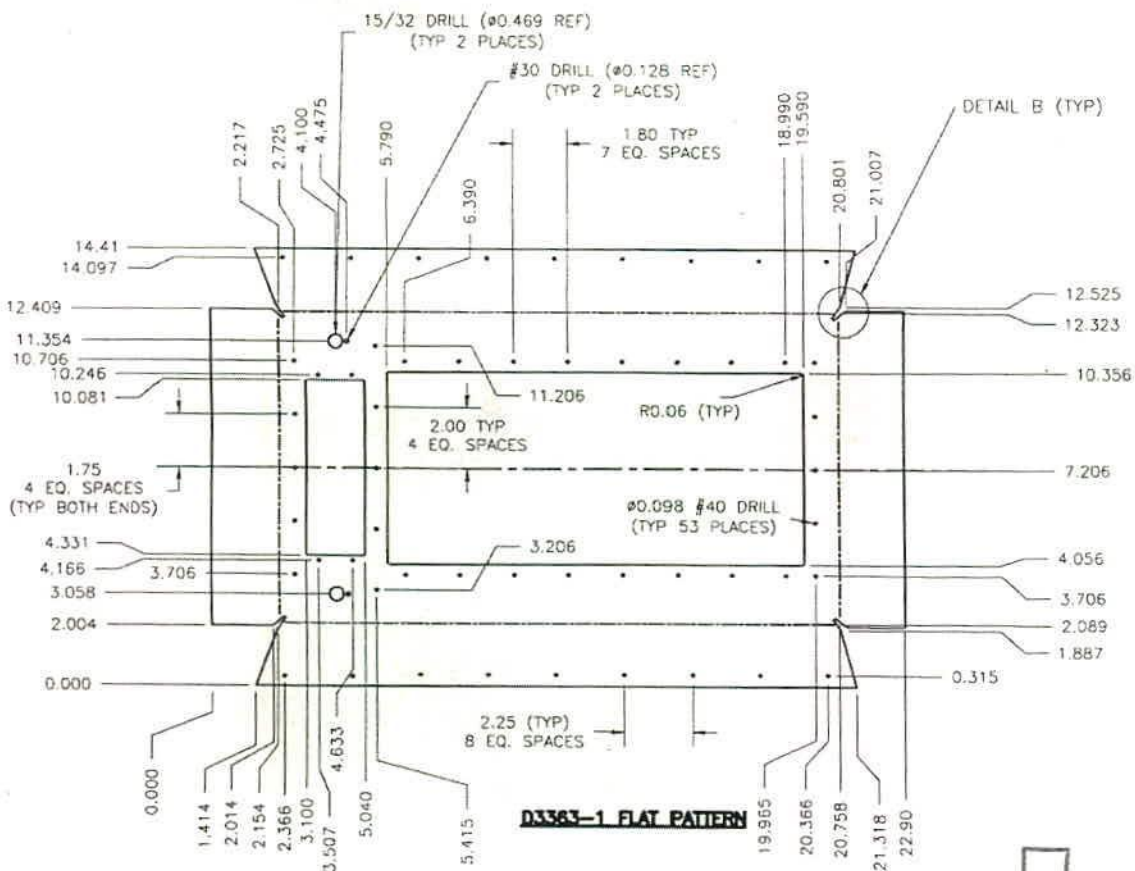
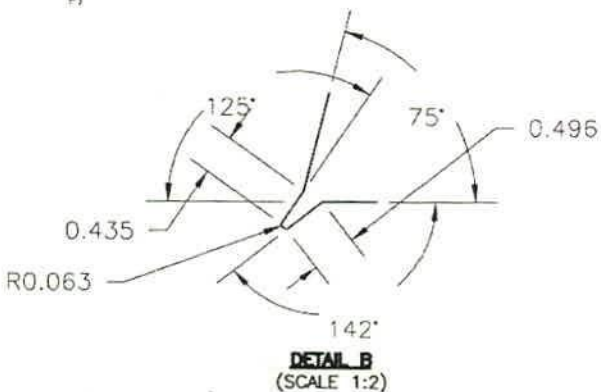
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DATE 05.03.28		TITLE CONSOLE ASSEMBLY	SCALE 1:6

**D3363-1 FLAT PATTERN**

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**D3363-1 CONSOLE (FLAT PATTERN)**

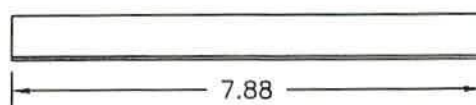
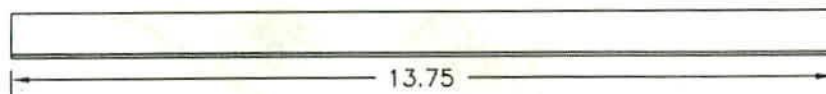
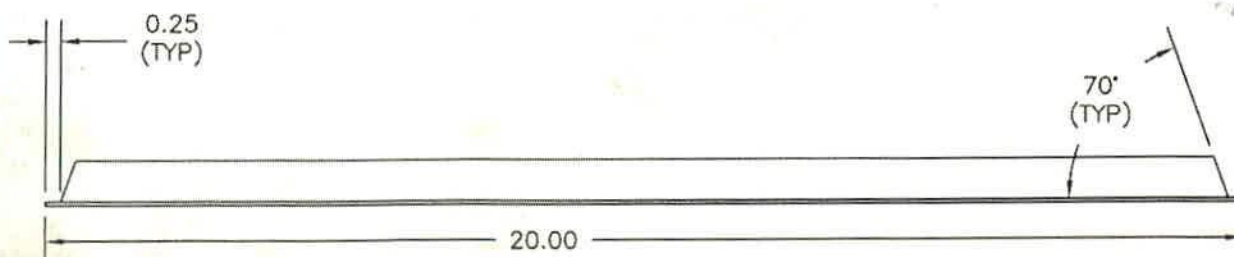
- 1) MATERIAL: 6061-T6/T651 ALUMINUM (MATERIAL SPEC: QQ-A-250/11) 0.063 THICK (REF DART SPEC M6061T6S.063)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) PART IS SYMMETRICAL ABOUT CENTERLINE

**DART**

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CHECKED PH	APPROVED PH	DRAWING NO. D3360	REV. A SHEET 1 OF 1
DATE 04.11.29		TITLE ANGLE	SCALE 1:12
A	04.11.29	NEW ISSUE	

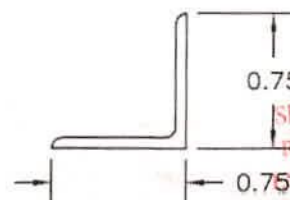
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05-03-31

D3360-1  
(SCALE 1:3)D3360-3  
(SCALE 1:3)D3360-5  
(SCALE 1:3)

## D3360-1/-3/-5 ANGLE

- 1) CUT LENGTH/SHAPE PER DIAGRAM
- 2) MATERIAL: 6063-T52 ALUMINUM  
STOCK SIZE: 3/4" x 3/4" x 0.063" ANGLE EXTRUSION
- 3) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SECTION A-A  
(SCALE 1:1)

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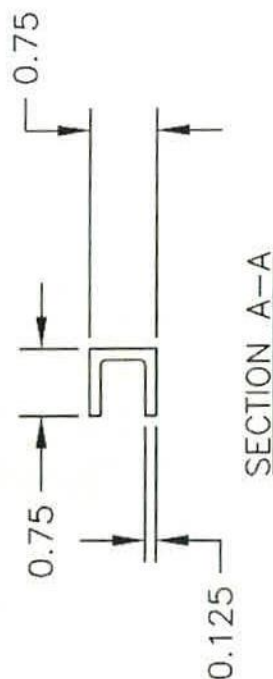
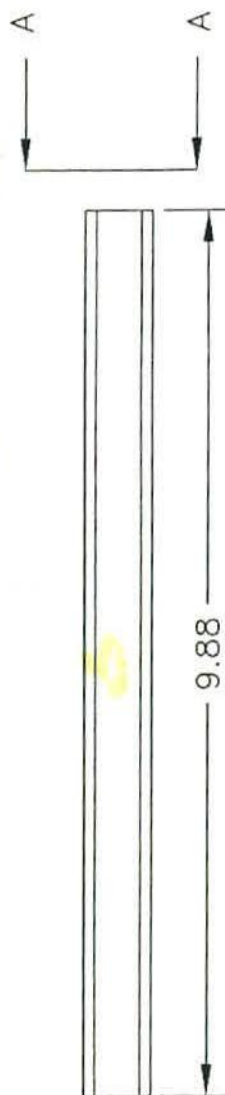
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DATE 04.11.29		TITLE CHANNEL	SCALE 1:2
A	04.11.29	NEW ISSUE	



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05.03.11

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D3361-1 CHANNEL

- 1) CUT LENGTH/SHAPE PER DIAGRAM
- 2) MATERIAL: 6063-T52 ALUMINUM  
STOCK SIZE: 3/4" x 3/4" x 0.125" CHANNEL EXTRUSION
- 3) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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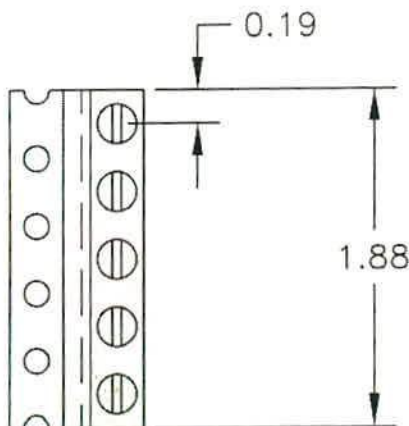
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DATE 04.11.29		TITLE RAIL	SCALE 1:1
A	04.11.29	NEW ISSUE	

**RELEASED**

05.03 31 [Signature]

D3362-1 RAIL

- 1) CUT LENGTH/SHAPE PER DIAGRAM
- 2) MAKE FROM DZUS RAIL P/N "PR 3-1/2-1" OR PR-35-1
- 3) TOLERANCES ARE PER DART QSI 018
- 4) ALL DIMENSIONS ARE IN INCHES

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